

5

A method and apparatus are provided for controllably dispensing flux on a substrate having a plurality of conductive terminals. Flux having a viscosity range between 10 centipoises and about 150 centipoises is sprayed on the substrate and the conductive terminals at a valve pressure range between about 1.5 psi and about 30 psi via a dispense nozzle of a flux dispenser. Upon a subsequent high temperature solder reflow process, the sprayed flux on the substrate is mostly removed by thermal decomposition to volatile species, thereby significantly reducing flux residue remaining on the surface of the substrate between the conductive terminals.